RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:

Source:

Date Processed by STIC:

ENTERED



IFW16

RAW SEQUENCE LISTING DATE: 03/10/2005 PATENT APPLICATION: US/10/021,818A TIME: 14:31:45

```
3 <110> APPLICANT: Davis, Ronald W.
         Vaillancourt, Peter
 6 <120> TITLE OF INVENTION: Dimeric Fluorescent Polypeptides
 8 <130> FILE REFERENCE: 25436/1652
10 <140> CURRENT APPLICATION NUMBER: US 10/021,818A
11 <141> CURRENT FILING DATE: 2001-12-13
13 <150> PRIOR APPLICATION NUMBER: US 60/256,121
14 <151> PRIOR FILING DATE: 2000-12-15
16 <160> NUMBER OF SEQ ID NOS: 72
18 <170> SOFTWARE: PatentIn version 3.1
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 720
22 <212> TYPE: DNA
23 <213> ORGANISM: Renilla reniformis
25 <400> SEQUENCE: 1
26 atggtgagta aacaaatatt gaagaacact ggattgcagg agatcatgtc gtttaaagtg
                                                                          60
28 aatctggaag gtgtagtaaa caatcatgtg ttcacaatgg aaggttgtgg aaaaggaaat
                                                                         120
30 attttattcg gaaaccaact ggttcagatt cgtgtcacaa aaggggtccc gcttccattt
                                                                         180
32 gcatttgata ttctctcacc agctttccaa tacggcaacc gtacattcac gaaatacccg
                                                                         240
34 gaggatatat cagacttttt tatacaatca tttccagcgg gatttgtata cgaaagaacg
                                                                         300
36 ttgcgttacg aagatggtgg actggttgaa atccgttcag atataaattt aatcgaggag
                                                                         360
38 atgtttgtct acagagtgga atataaaggt agtaacttcc cgaatgatgg tccagtgatg
                                                                         420
40 aagaagacaa tcacaggatt acaaccttcg ttcgaagttg tgtatatgaa cgatggcgtc
                                                                         480
42 ttggttggcc aagtcattct tgtttataga ttaaactctg gcaaatttta ttcgtgtcac
                                                                         540
44 atgagaacac tgatgaaatc aaagggtgta gtgaaggatt ttcccgaata ccatttcatt
                                                                         600
46 caacategtt tagagaagac tgatgtggaa gacggaggtt ttgttgagca acacgagacg
                                                                         660
48 gccattgctc aactgacatc gctggggaaa ccacttggat ccttacacga atgggtttaa
                                                                         720
51 <210> SEQ ID NO: 2
52 <211> LENGTH: 238
53 <212> TYPE: PRT
54 <213> ORGANISM: Renilla reniformis
56 <400> SEOUENCE: 2
58 Met Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met Ser .
59 1
                   5
                                       10
62 Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr Met
66 Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val Gln
           35
                               40
70 Ile Arg Val Thr Lys Gly Val Pro Leu Pro Phe Ala Phe Asp Ile Leu
                           55
                                               60
74 Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Glu
                       70
                                           75
78 Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val Tyr
```

RAW SEQUENCE LISTING DATE: 03/10/2005
PATENT APPLICATION: US/10/021,818A TIME: 14:31:45

```
79
                        85
                                             90
     82 Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg Ser
                                        105
     86 Asp Ile Asn Leu Ile Glu Glu Met Phe Val Tyr Arg Val Glu Tyr Lys
                115
                                    120
     90 Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile Thr
                                135
            130
                                                     140
     94 Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val Leu
     98 Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe Tyr
                                             170
                        165
     102 Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys Asp
     103
                     180
                                         185
     106 Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Asp Val
     107
                 195
                                     200
     110 Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln Leu
                                 215
     114 Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
     115 225
                             230
     118 <210> SEQ ID NO: 3
     119 <211> LENGTH: 720
     120 <212> TYPE: DNA
     121 <213> ORGANISM: Artificial sequence
     123 <220> FEATURE:
     124 <223> OTHER INFORMATION: R. reniformis GFP polynucleotide sequence adapted to
humanize cod
     125
               on usage
     127 <400> SEOUENCE: 3
     128 atggtgagca agcagatcct gaagaacacc tgcctgcagg aggtgatgag ctacaaggtg
                                                                                60
     130 aacctggagg gcatcgtgaa caaccacgtg ttcaccatgg agggctgcgg caagggcaac
                                                                               120
     132 atcctgttcg gcaaccagct ggtgcagatc cgcgtgacca agggcgcccc cctgcccttc
                                                                               180
     134 gccttcgaca tcgtgagccc cgccttccag tacggcaacc gcaccttcac caagtacccc
                                                                               240
     136 aacgacatca gcgactactt catccagagc ttccccgccg gcttcatgta cgagcgcacc
                                                                               300
     138 ctgcgctacg aggacggcgg cctggtggag atccgcagcg acatcaacct gatcgaggac
                                                                               360
     140 aagttegtgt accgegtgga gtacaaggge ageaacttee eegacgaegg eecegtgatg
                                                                               420
     142 cagaagacca teetgggeat egageeeage ttegaggeea tgtacatgaa caacggegtg
                                                                               480
     144 ctggtgggcg aggtgatcct ggtgtacaag ctgaacagcg gcaagtacta cagctgccac
                                                                               540
     146 atgaagaccc tgatgaagag caagggcgtg gtgaaggagt tcccctccta ccacttcatc
                                                                               600
     148 cagcaccgcc tggagaagac ctacgtggag gacggcggct tcgtggagca gcacgagacc
                                                                               660
     150 gccatcgccc agatgaccag catcggcaag cccctgggca gcctgcacga gtgggtgtaa
                                                                               720
     153 <210> SEQ ID NO: 4
     154 <211> LENGTH: 239
     155 <212> TYPE: PRT
     156 <213> ORGANISM: Artificial sequence
     158 <220> FEATURE:
     159 <223> OTHER INFORMATION: Sequence of R. reniformis GFP polypeptide encoded by
humanized R.
               reniformis GFP polynucleotide sequence
     162 <400> SEQUENCE: 4
     164 Met Val Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met
     165.1
                                             10
```

RAW SEQUENCE LISTING DATE: 03/10/2005 PATENT APPLICATION: US/10/021,818A TIME: 14:31:45

```
168 Ser Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr
169
               20
172 Met Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val
176 Gln Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile
180 Leu Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro
                       70
                                           75
184 Glu Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val
                   85
188 Thr Glu Arg Thr Leu Arg Tyr Glu Asp Gly Leu Val Glu Ile Arg
               100
                                   105
192 Ser Asp Ile Asn Leu Ile Glu Glu Met Phe Val Tyr Arg Val Glu Tyr
193 115
                               120
196 Lys Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile
                           135
200 Thr Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val
                       150
                                          155
204 Leu Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe
                  165
                                      170
208 Tyr Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys
                                  185
209
     180
212 Asp Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr
213 195
                              200
216 Val Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln
217
                           215
                                               220
220 Leu Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
                       230
224 <210> SEQ ID NO: 5
225 <211> LENGTH: 10
226 <212> TYPE: PRT
227 <213> ORGANISM: Artificial sequence
229 <220> FEATURE:
230 <223> OTHER INFORMATION: Synthetic peptide linker sequnce
232 <400> SEQUENCE: 5
234 Gly Gly Gly Ser Gly Gly Gly Ser
235 1
                                       10
238 <210> SEQ ID NO: 6
239 <211> LENGTH: 15
240 <212> TYPE: PRT
241 <213> ORGANISM: Artificial sequence
243 <220> FEATURE:
244 <223> OTHER INFORMATION: Synthetic linker peptide
246 <400> SEQUENCE: 6
248 Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
252 <210> SEO ID NO: 7
253 <211> LENGTH: 20
254 <212> TYPE: PRT
```

DATE: 03/10/2005

TIME: 14:31:45

Input Set : A:\updated seq list.txt Output Set: N:\CRF4\03102005\J021818A.raw 255 <213> ORGANISM: Artificial sequence 257 <220> FEATURE: 258 <223> OTHER INFORMATION: Synthetic linker peptide 260 <400> SEQUENCE: 7 262 Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Gly 10 263 1 266 Gly Gly Gly Ser 267 20 270 <210> SEQ ID NO: 8 271 <211> LENGTH: 11 272 <212> TYPE: PRT 273 <213> ORGANISM: Artificial sequence 275 <220> FEATURE: 276 <223> OTHER INFORMATION: Synthetic linker peptide 278 <400> SEQUENCE: 8 280 Arg Ala Arg Asp Pro Arg Val Pro Val Ala Thr 284 <210> SEQ ID NO: 9 285 <211> LENGTH: 2 286 <212> TYPE: PRT 287 <213> ORGANISM: Artificial Sequence 289 <220> FEATURE: 290 <223> OTHER INFORMATION: synthetic linker peptide 292 <400> SEQUENCE: 9 294 Gly Ser 295 1 298 <210> SEQ ID NO: 10 299 <211> LENGTH: 4 300 <212> TYPE: PRT 301 <213> ORGANISM: Artificial Sequence 303 <220> FEATURE: 304 <223> OTHER INFORMATION: Synthetic linker peptide 306 <400> SEQUENCE: 10 308 Gly Ser Gly Ser 309 1 312 <210> SEQ ID NO: 11 313 <211> LENGTH: 6 314 <212> TYPE: PRT 315 <213> ORGANISM: Artificial Sequence 317 <220> FEATURE: 318 <223> OTHER INFORMATION: Synthetic linker peptide 320 <400> SEQUENCE: 11 322 Gly Ser Gly Ser Gly Ser 323 1 326 <210> SEQ ID NO: 12 327 <211> LENGTH: 8 328 <212> TYPE: PRT

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/021,818A

331 <220> FEATURE:

329 <213> ORGANISM: Artificial Sequence

RAW SEQUENCE LISTING DATE: 03/10/2005 PATENT APPLICATION: US/10/021,818A TIME: 14:31:45

```
332 <223> OTHER INFORMATION: Synthetic linker peptide
334 <400> SEQUENCE: 12
336 Gly Ser Gly Ser Gly Ser
337 1
340 <210> SEQ ID NO: 13
341 <211> LENGTH: 10
342 <212> TYPE: PRT
343 <213> ORGANISM: Artificial Sequence
345 <220> FEATURE:
346 <223> OTHER INFORMATION: Synthetic linker peptide
348 <400> SEQUENCE: 13
350 Gly Ser Gly Ser Gly Ser Gly Ser
351 1
354 <210> SEQ ID NO: 14
355 <211> LENGTH: 12
356 <212> TYPE: PRT
357 <213> ORGANISM: Artificial Sequence
359 <220> FEATURE:
360 <223> OTHER INFORMATION: Synthetic linker peptide
362 <400> SEQUENCE: 14
364 Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser
365 1
                                       10
                   5
368 <210> SEQ ID NO: 15
369 <211> LENGTH: 14
370 <212> TYPE: PRT
371 <213> ORGANISM: Artificial Sequence
373 <220> FEATURE:
374 <223> OTHER INFORMATION: Synthetic linker peptide
376 <400> SEQUENCE: 15
378 Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser
379 1
          -
382 <210> SEQ ID NO: 16
383 <211> LENGTH: 16
384 <212> TYPE: PRT
385 <213> ORGANISM: Artificial Sequence
387 <220> FEATURE:
388 <223> OTHER INFORMATION: Synthetic linker peptide
390 <400> SEQUENCE: 16
392 Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser
                                       10
396 <210> SEQ ID NO: 17
397 <211> LENGTH: 18
398 <212> TYPE: PRT
399 <213> ORGANISM: Artificial Sequence
401 <220> FEATURE:
402 <223> OTHER INFORMATION: Synthetic linker peptide
404 <400> SEQUENCE: 17
406 Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser
407 1
                                       10
```

VERIFICATION SUMMARY

DATE: 03/10/2005 TIME: 14:31:46

PATENT APPLICATION: US/10/021,818A